

**Matching procedures.** The CSC I & R form was merged with the 1991 and 1993 birth records (with infant deaths deleted) by matching on either of two identifiers. The first identifier used the first three letters of the child's last name, the first seven letters of the first name, and date of birth. A second identifier was also constructed from the first three letters of the last name, the first letter of the first name, date of birth, and hospital of birth. This second identifier was designed to find additional birth certificate matches.

**Data Analysis.** The data were categorized by perinatal care region. North Carolina's 100 counties are divided into six perinatal care regions: Western, Northwestern, Southwestern, Northeastern, Southeastern, and Eastern (see Appendix). In each region there is at least one (Level III) hospital that provides neonatal intensive care for high risk infants. In order to achieve sufficient sample size for a small area study, the data were grouped from the county-level up to the perinatal care regional level.

Comparisons between the 1991 and 1993 CSC coverage rates for VLBW births and mothers under 15 years of age were broken out by health department (HD) and non-health department status (non-HD), regarding the mother's use of prenatal care. Health department coverage was determined from the Health Services Information Systems (HSIS) files, which identify mothers receiving prenatal care through health department providers. Approximately one-fourth of all pregnant women in North Carolina receive their prenatal care in public health departments.

Coverage was based on matched cases, that is the number of infants/families enrolled in CSC (because of VLBW or teenage motherhood) who were matched to the birth files. Coverage was calculated as:

$$\text{coverage} = \frac{\text{number of matched CSC enrollees with risk condition}}{\text{total number with corresponding risk in the birth population}}$$

and expressed as a percent for statewide and regional populations.

When describing differences between coverage rates, we expressed the difference in percentage points, resulting from the subtraction of two percentages. The Chi-square test was also used to test for differences in the percentage of infants enrolled in CSC when prenatal care was provided in health departments and in private facilities; statewide differences comparing the 1991 and 1993 rates of coverage for both risk groups were also tested.

## RESULTS

**CSC infant birth match.** For 1991, there were 7,491 infants referred (for all risk factors) to the Child Service Coordination Program; that number was 7.3 percent of the state birth population. The corresponding figures for 1993 were 9,889 infants referred, representing 9.7 percent of all births. The birth file match rate for both years was similar. Eighty-eight percent (6,607) of the total number of infants referred to CSC were matched to the 1991 birth file; for 1993, 87.5 percent (8,658 infants) were matched to the 1993 birth file. For VLBW infants who died during the first year of life, 167 were excluded from the analysis of the 1991 population, and 225 were excluded from the analysis of the 1993 population.

**CSC Coverage of VLBW infants.** Of the 1,222 VLBW infants born in 1991 who survived the first year of life, 79.1 percent were referred to the CSC Program (297 from health departments and 670 from the private sector). Among the 1993 population of 1,326 VLBW infants who survived the first year, 74.1 percent were referred to CSC (298 from health departments and 685 from private settings).

Figure 1a. (page 4) shows the percent of VLBW infants enrolled in CSC in 1991 among mothers receiving prenatal care in health departments or in non-health departments. In 1991, the statewide coverage of VLBW infants was 7.4 percentage points higher among health departments than the non-HD sector.